UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,454	09/28/2004	Hubert Cecile Francois Martens	NL 030310	2233

24737 7590 07/26/2007

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER	
HEYI, HENOK G	

ART UNIT	PAPER NUMBER
2609	

MAIL DATE	DELIVERY MODE
07/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/509,454	MARTENS, HUBERT CECILE FRANCOIS	
	Examiner	Art Unit	
	Henok G. Heyi	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☒ Claim(s) *5-10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 September 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:
(1) if a machine or apparatus, its organization and operation;
(2) if an article, its method of making;
(3) if a chemical compound, its identity and use;
(4) if a mixture, its ingredients;
(5) if a process, the steps..

Extensive mechanical and design details of apparatus should not be given.

The abstract of the disclosure is objected to because it gives design details of the optical recording medium. Mentioning the different layers is proper and examiner hasn't found any problem with that. However, mentioning the reference characters or numbers of the different layers in the abstract is improper. Correction is required. See MPEP § 608.01(b).

Claim Objections

2. Claims 5, 6, 7, 8, 9 and 10 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim 3 depends on either claim 1 or 2 and hence another claim should not depend on it. See MPEP § 608.01(n). Accordingly, the claims 6, 7, 8, 9 and 10 not been further treated on the merits.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Horie et al US 5,581,539 (Horie hereinafter).

Re claim 1, an optical data storage medium (10) for recording by means of a focused radiation beam (9) having a wavelength λ and entering through an entrance face (8) of the medium during recording, at least comprising: a substrate (1), including a guide groove with a depth g, the guide groove being present at the side of the substrate opposite to the entrance face (8), a recording stack (2, 3) of layers on the substrate (1) at the side of the guide groove, which stack includes: a write once recording layer (2) of

a material having a complex refractive index $n_R = n_R - i*k_R$ at the wavelength k and having a thickness d_{RG} in the groove portion and a thickness d_{GL} in the portion between grooves, being present adjacent the substrate, a non-metallic layer (3) of a substantially transparent material, being present adjacent the write-once recording layer (2), characterized in that the groove depth g is in the range $(\lambda /655)*20nm < g < (\lambda /655)*$ 140 nm with λ. expressed in nm (everything above have been disclosed in the Abstract).

Re claim 2, an optical data storage medium (10) as claimed in claim 1, wherein the non-metallic layer (3) mainly comprises a material selected from the group of transparent plastic, silicon, oxides of silicon, nitrides of silicon and carbides of silicon (oxides, sulphides, nitrides and carbides in which a portion of oxygen constituting metal oxides is substituted with S or Se can be used, see col 14 line 65-col 15 line 6).

Re claim 3, an optical data storage medium (10) as claimed in claims 1 or 2, wherein the wavelength λ, is approximately 655 nm (groove depth wavelength 633, see col 17 line 64-67 and col 29 line 66-67).

Re claim 4, an optical data storage medium (10) as claimed in claim 3, wherein g <125nm (define the groove depth within a certain range corresponding to a wavelength of a reading-out light, col 3 line 60 and preferably from 40 to 80nm col 20 line 47).

Re claim 5, an optical data storage medium (10) as claimed in claims 3 or 4, wherein g > 50nm (define the groove depth within a certain range corresponding to a wavelength of a reading-out light, col 3 line 60 and preferably from 40 to 80nm col 20 line 47).

Re claim 6, an optical data storage medium (10) as claimed in any one of claims 3 - 5, wherein the recording layer (2) has a thickness d_{RG} and 145 nm $d_{RG} * nR < 245$ nm and the non-metallic layer mainly comprises SiO_2 and has a thickness d_T in the range 5 nm $< d_T <$120 nm (on the substrate were formed a layer at 120nm, a layer at 30nm, a layer at 20nm and a layer at 200nm, col 32 line 8-14).

Re claim 7, an optical data storage medium (10) as claimed in any one of claims 3 - 5, wherein the recording layer has a thickness d_{RG} and 132 nm $< d_{RG} * nR < 220$ nm and the non-metallic layer mainly comprises SiC and has a thickness d_T in the range 5 nm $< d_T < 60$ nm (on the substrate were formed a layer at 120nm, a layer at 30nm, a layer at 20nm and a layer at 200nm, col 32 line 8-14).

Re claim 8, an optical data storage medium (10) as claimed in any one of claims 3 - 5, wherein the recording layer has a thickness dRG and 154 nm $< d_{RG} * nR < 264$ nm and the non-metallic layer mainly comprises amorphous Si and has a thickness d_T in the range 1 nm $<$ dT $<$ 20 nm (on the substrate were formed a layer at 120nm, a layer at 30nm, a layer at 20nm and a layer at 200nm, col 32 line 8-14).

Re claim 9, An optical data storage medium (20) as claimed in any one of the preceding claims, wherein at least one further recording stack (2', 3') is present adjacent a further substrate (4), including a guide groove with a depth g, in the same range as g, the guide groove being present at the side of the further substrate (4) opposite to the entrance face (8), the further recording stack (2', 3') including: a further write once recording layer (2') of a material having a complex refractive index fi'R = n'R - i*k'R at the wavelength λ. and having a thickness d'_{RG} in the groove portion and a thickness d'_{RL} in the portion between grooves, being present adjacent the substrate, a further non-metallic layer (3') of a substantially transparent material, being present adjacent the further write-once recording layer (2') (everything above have been disclosed in the Abstract and for further explanation look Miyamoto et al. US 2001/0016242 A1).

Re claim 10, Use of an optical data storage medium (10, 20) as claimed in any one of the preceding claims, in a standard optical data storage medium recording/reading device suitable for tracking by means of the push pull method (push-pull system as a tracking system, col 21 line 50) onto a guide groove of a standard recordable optical data storage medium, which guide groove is present near a metallic reflective layer (a metal reflective layer deposited orderly near a transparent substrate formed with grooves, col 7 line 13-16).

Examiner's Note

The referenced citations made in the rejection(s) above are intended to exemplify areas in the prior art document(s) in which the examiner believed are the most relevant to the claimed subject matter. However, it is incumbent upon the applicant to analyze the prior art document(s) in its/their entirety since other areas of the document(s) may be relied upon at a later time to substantiate examiner's rationale of record. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). However, "the prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed...." In re Fulton, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henok G. Heyi whose telephone number is (571) 272-1816. The examiner can normally be reached on Monday to Friday 7:30 to 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571) 272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HGH

VU LE
SUPERVISORY PATENT EXAMINER